

Laughing and Yelling Through Yaks: A Content Analysis of Yik Yak, Exploring Humor Topics, Types, Styles and User Motives in the Anonymous Social Media Environment

Brandon K. Chicotsky¹ and Fei Qiao^{2*}

¹Carey Business School, Johns Hopkins University, Baltimore, MD 21202

²School of Journalism and Communication, Guangdong University of Foreign Studies, Guangzhou, Guangdong, 510420

*Corresponding Author: jennifer.qf@gmail.com, +8613926280654, @fei_qiao (Twitter)

This study examines 2,000 posts divided by a default thread and hot thread on Yik Yak, an anonymous mobile platform. Results reveal that 1) silliness is the most frequent humor type in both threads; 2) humorous posts with negative styles are adopted more significantly than positive styles in the hot

thread; 3) “social media, media and television” is the most frequent humor topic; and 4) user motives are unrelated to humorous posts.

Keywords: Yik Yak, mobile technology, humor, anonymity, social media

Yik Yak, an anonymous social media networking application (app) for mobile phones, which launched in November 2013, has over a quarter of a million users (Burns, 2014). Users of Yik Yak interact anonymously by contributing posts and comments, which can be viewed by other Yik Yak users within a 1.5 mile radius (Kotrous & Johnson, 2014; Parkinson, 2014). The app provides an exclusive platform for college students who attend the same university to communicate with each other. While an individual’s post is anonymous, there is often social relevance offered in posts with local jargon, helpful information or expressions of emotions (Wang et al., 2014) about the college environment, among other topics analyzed in this study.

Posts on Yik Yak are called “yaks” on the app, which can be upvoted or downvoted by users. The most upvoted “yaks” are listed as “hot” while the most downvoted “yaks” are removed. The voting mechanism mainly serves two functions. First, “hot” yaks can be viewed by more users. Second, by removing the most downvoted “yaks,” harassment or

inappropriate remarks are not viewed by users after the “yaks” have been demoted, which diminishes the negative effects of offensive or abusive content on its users (Kotrous & Johnson, 2014; Parkinson, 2014).

Few studies have focused on exploring the types and features of posts on anonymous social media platforms. A phenomenon exists among Yik Yak users in particular, where posts are noticeably humorous, yet varied in their topical content. To bridge this gap, the current study focuses on investigating the topic type, topic motive and topic style of yaks, as well as relationships of humor on the anonymous social media platform for mobile users. Implications of the research include an increased understanding of an emerging social media environment centered around anonymity of its users.

LITERATURE REVIEW

Uses & Gratifications Theory

Uses and gratifications theory (U&G) argues that audiences are active seekers rather than passive receivers (Quan-Haase & Young, 2010). In other words, audiences use different media to satisfy their own needs (Katz, Blumer, & Gurevitch, 1973). In recent studies, researchers tend to apply U&G to social media platforms, such as Facebook and Twitter. Different types of motivations and gratifications are generated by using different social media. For example, the major motivation for using Facebook is to connect with friends (Quan-Haase & Young, 2010), and the main gratification for using Facebook is to pass time (Quan-Haase & Young, 2010).

Non-anonymous social media platforms provide an opportunity for audiences to socialize and interact with each other. On these platforms, users are inclined to suppress their negative emotions because they tend to maintain a positive impression among their friends (Krämer & Winter, 2008). Whereas, anonymous social media platforms offer audiences a chance to express their true emotions, such as venting, entertaining, humor, etc.

The current study focuses on the emerging social media platform, Yik Yak. The marketing aims for Yik Yak, according to its co-founders, Brooks Buffington and Tyler Droll, targets college students and encourages them to post humorous content about their lives, studies and communities. Therefore, the college students are likely to use Yik Yak as a way to meet their needs for having fun and expressing humor. In order to explore the

humor effects on the anonymous platform, the following sections of the literature are centered on humor and attributes of Yik Yak.

Humor

Definition of Humor. Attardo (1994) describes humor as a phenomenon that includes *knowledge resources*, which may involve, “language, narrative strategies, target, situation [and] point of view” (Reyes, Rosso, & Buscaldi, 2012, p. 4). Cultural knowledge (Flamson & Barrett, 2008), cultural signals (Flamson & Bryant, 2013) and cultural representations (Norrick, 1989; Reyes et al., 2012) are also mentioned in literature as components of humor. Earlier analyses of humor describe an expression of social attitudes (Winick, 1976). In this format, humor is “a vehicle through which people can voice feelings for which there is no socially acceptable or easily accessible outlet” (Winick, 1976).

Humor Typology. Popular media has referred to the cultural development of anonymous social media communities as “rude” and part of a “raunchy underbelly of the Internet” (Sauthoff, 2009). Scholarly literature also acknowledges a distinct attribute of anonymous, online posting—humor (Klink, 2010; Liu, 2012; Ramoz-Leslie, 2011). While pre-Internet components of humor are exercised in various Internet contexts (Shifman, 2007), new constructs of humor have developed that are specific to the anonymous, online environment (Kuipers, 2006). These new constructs are evolving on mobile anonymous social media apps like Yik Yak. To investigate the different forms of humor present, the researchers adapt Catanescu and Tom’s (2001) typology of humor present in television and magazine advertising.

Seven types are identified in Catanescu and Tom’s (2001) studies: 1) Comparison, referring to “putting two or more elements together to produce a humorous situation”; 2) Personification, referring to “attributes human characteristics to animals, plants, and object”; 3) Exaggeration, referring to “overstating and magnifying something out of proportion”; 4) Pun, referring to “using elements of language to create new meanings, which result in humor”; 5) Sarcasm, referring to “sarcastic comments or situations”; 6) Silliness, referring to making funny messages to ludicrous ones; and 7) Surprise, referring to “humor arises from unexpected situation[s]” (p.1).

Humor is *platform-agnostic* (Westlund, 2013), meaning effects of humor, whether visual or textual, may function through various media. Therefore, the rationale for why our theoretical basis of humor typology, which was originally conceived from a television analysis, rests in media effects. Humor is not defined solely by visual representation. Rather, it is defined by the effect of the message (Catanescu & Tom, 2001). Therefore, the media, which has humorous elements, causes an effect onto the user, whether it be a television viewer or a mobile app user. In essence, humor will impact the engaged audience; whereby, the media is the catalyst for humor to reach the user.

Humor Style. In scholarly research, humor style relates to “how humor is expressed in social interaction” (Yip & Martin, 2006, p. 1203). Such expression entails two dimensions: humor that is positively expressed and negatively expressed (Yip & Martin, 2006). Positively expressed humor refers to the humor content that is beneficial for people’s emotional well-being, which is also called “affiliative and self-enhancing humor” (Yip & Martin, 2006, p. 1203). Such style of humor can strengthen people’s emotional feelings, and increase people’s social competence. Negatively expressed humor refers to the humor content that is detrimental for people’s emotional well-being, which is also called “aggressive and self-defeating humor” (Yip & Martin, 2006, p. 1203). Such style of humor was, in essence, built upon making fun of people or trampling on other’s self-esteem, which might exert negative impacts on people’s emotional intelligence and decrease their social standing.

On the anonymous social media platforms, these two styles of humor can be commonly seen. Especially, the negative expressed style can be more easily observed, such as using expletives to express emotions, or making fun of minorities. For example, one yak that said: “I swear to God, black people drive with no sense of urgency.” Such posts with a negative expression style might be detrimental to the emotional well-being of the minorities who also utilize the anonymous social media platform.

Attributes of Yaks

Topics of Yaks. Topics identified by the researchers for the current study are generated, in part, from the reference knowledge of the researchers in their recall potential of social and cultural elements (Hartshorne, 1943) of the college environment.

Such elements may include memes (Bauckhage, 2011), references to popular media (Strauss, Howe, & Markiewicz, 2006), colloquial phrases (Hummon, 1994) or content that is descriptive of “college life” (Hummon, 1994). While both researchers base their research endeavors on a college campus, the following topics also rely on experiential learning and recognition (Kolb, 2014).

Topics are not mutually exclusive in their representation of user content. Many posts on Yik Yak, as with any social media platform, may offer complex meaning with multiple ideas (Page, 2013). Yik Yak allows up to 200 characters with each post, which is 60 more characters than Twitter’s platform provided users originally (Blog.Twitter.com, 2015). Considering the significant body of scholarly attention to Twitter content (Chew & Eysenbach, 2010; Dann, 2010; Lampos, 2012; Zhao et al., 2011), a categorization of Yik Yak content is deemed appropriate to advance knowledge of the anonymous mobile app community.

Considering numerous, possible topics for posts on social media, there is no official categorization for user generated content. Therefore, the researchers conducted a pre-test of 100 posts from a Yik Yak community from a southern university with over 30,000 students and identified ten categories of topics on Yik Yak. The ten categories of topics are:

- 1) “Studies and Classes,” referring to content related to academia that may involve classes, professors, tests, homework, university personnel or content closely related to the aforementioned academic elements;
- 2) “Sex,” referring to content related to the act of sex, which may include innuendos, euphemisms or implicit meaning alluding to concepts of sex;
- 3) “Relationship,” referring to content that is not explicitly sexual involving friendships, romantic desires of dating, love and the like;
- 4) “Sports,” referring to posts discussing rivalries, hometown teams or any content related to competitive athletics and sports (professional or collegiate);
- 5) “Social,” referring to posts about gatherings and events, which can include parties and the like;
- 6) “Health and body,” referring to any mention of bodily functions, eating, sleeping (which does not denote sex) and diet;

- 7) “Social media, media or television,” referring to any mention of social media (e.g., *Walking Dead*, *Oscars*, *American Sniper*, selfies, Facebook, Yik Yak or Snapchat);
- 8) “Weather,” referring to any mention of the weather or climate;
- 9) “Indecipherable,” referring to anything entirely unintelligible; and
- 10) “Other,” referring to anything that does not fit in the previous topics or has zero contextual connection that would enable any interpretation of meaning.

User Motives. Motives in the social media environment are the precursor of social interactive engagement as they apply to psychological needs of individuals receiving gratification (Blumler & Katz, 1974; Shao, 2009). Previous research of social media communities that offer analyses of motives for user engagement include impression management (Park & Lee, 2014), belongingness (Seidman, 2013) and social well-being (Kim & Lee, 2011). Other studies that evaluate user motives and user engagement include a focus on learning (Silius et al., 2010), a focus on engagement in the workplace (DiMicco et al., 2008) and a focus among college students with different cultural orientations (Kim, Sohn, & Choi, 2011). Several studies have also focused on a relatively new area of social media— anonymity (Lakkaraju, McAuley, & Leskovec, 2013; Wasike, 2011).

The current analysis investigates additional motives for online engagement that factor anonymity among users. Alhadi, Gottron, and Staab (2011) classify the motives of using Twitter, which include: 1) “Shared Resources,” referring to exchange value among social media users; 2) “Promotion and Marketing,” referring to a shared or exposed user base to media, ideas, products, services, information, events etc; 3) “Give or Require Feedback,” referring to prompts for dialogue or social media participation for expressions of opinions or information; and 4) “Express Emotion,” referring to posts that convey emotional statuses (p. 2).

The researchers adapt the aforementioned motive categories to correspond with the anonymous social media environment of Yik Yak. The adapted motives include: 1) “Information-sharing,” which is the adapted motive for “sharing resources,” referring to any post on Yik Yak that is specific to information-seeking or information-sharing; 2) “Insult,” which was determined as necessary from the pre-test despite no adaption category from Alhadi et al. (2011), and refers to any statement that belittles, devalues,

dehumanizes or has the intention of verbally hurting an intended subject; 3) “Venting,” which is the adapted motive for the concept “Express Emotion,” referring to expressions of feelings, emotions or sentiments; and 4) “Inquiry,” which is the adapted motive for “Give or Require Feedback.”

Social Interactive Engagement. The indicators for social interactive engagement include voting, commenting, sharing, liking, following, etc. (Mersey, Malthouse, & Calder, 2010). These are the functions by which peer-to-peer communities in the mobile app environment engage and express themselves (Anderson, Huttenlocher, Kleinberg, & Leskovec, 2012; Sanderson & Rigby, 2013). In the case of Yik Yak, social interactive engagement is expressed through upvotes and downvotes of yaks, which may indicate a user’s favorability (upvote) or disliking (downvote). Due to the functions’ similarity with Internet-based anonymous social media platforms like Reddit.com, these functions are likely modeled from the Internet social media user experience (Mills, 2011). These elements on the mobile app may also factor into user growth and repeat user behavior (Holzer et al., 2013). These functions prompt users to engage in what is known as “gamification,” where points and acknowledgements are given to users to signify accomplishments (Holzer et al., 2013).

On Yik Yak, a total of two types of Yaks can be viewed: new Yaks and hot Yaks. A post that is upvoted or replied enough to become one of the hot yaks rewards points to the poster, thereby implying an incentive is present in gamification for users to author posts that will attract upvotes. Hot yaks indicate high social interactive engagement on Yik Yak.

A *thread* on Yik Yak, like many other social media platforms, describes a layout of sequential messages posted by users (Kwak, Lee, Park, & Moon, 2010). On Yik Yak, the “new” thread is the main thread, or “default” (Kwak et al., 2010) thread, from which “hot” posts are drawn. Both threads are updated in real-time to reflect the most recent “yaks.” For users to see the update, a scroll of a thumb downward initiates the thread to populate with new “yaks.”

While some posts on Yik Yak are irrefutably unintelligible, and seemingly random, not all users may participate in, or respond to, the gamification incentive. Considering the possibility of two, distinct and potentially non-mutually exclusive behavioral sets for user engagement, the researchers separate research questions into two categories: 1) Hot

thread, referring to yaks with high social interactive engagement; and 2) default thread, referring to yaks that are posted on the default thread from which hot threads are drawn. By evaluating both threads, the researchers may determine which topics, topic motives and topic styles are most and least prominent.

Research Questions

Due to the few number of scholarly studies dedicated to Yik Yak content, the following research questions are proposed to provide an initial investigation of the attributes on yaks and presence of humor on the anonymous social media platform for mobile users. In order to increase the validity and reliability of the study, yaks for ten universities are examined.

RQ1: Which humor types are significantly associated with humorous yaks in both the default and hot threads?

RQ2: Which humor styles are significantly associated with humorous yaks in both the default and hot threads?

RQ3: Which topics are significantly associated with humorous yaks in both the default and hot threads?

RQ4: Which user motives are significantly associated with humorous yaks in both the default and hot threads?

METHODS

To systematically analyze the topics, topic styles and topic motives, along with humor topics, humor styles and humor motives of posts on Yik Yak, a content analysis is used to explore the study's research questions.

Sampling

Yik Yak is available for mobile use only, which can be downloaded through the iPhone or Android application stores from users' smartphones. Therefore, the platform used for data collection is the mobile application, Yik Yak. The mobile app continuously updates anonymous posts. The researchers collected screenshots of all the most recent updated Yik Yak posts at ten, one-hour intervals from February 22 to March 4, 2015. The app enables users to view posts from other schools by choosing the "peek" option. After

screenshots are taken of 10 posts on the hot thread and 10 posts on the regular thread (20 total for each school), the coders then repeat this action until all ten schools have 20 posts with screenshots.

In order to have an exhaustive time frame for analyzing the yaks, the times are selected to cover late evening, late afternoon, dinner time, early night, late night, breakfast/early morning and lunch time throughout a calendar week. The screenshot process is initiated at the following times: 1) Sunday, February 22, 8pm; 2) Monday, February 23, 4pm; 3) Tuesday, February 24, 6pm; 4) Wednesday, February 25, 8pm; 5) Thursday, February 26, 10pm; 6) Friday, February 27, 12am; 7) Saturday, March 1, 2am; 8) Sunday, March 2, 10am; 9) Monday, March 3, noon; 10) Tuesday, March 4, 2pm.

Unit of Analysis

As reviewed above, the posts on Yik Yak are called “yaks.” Therefore, the unit of analysis is each yak. Two coders code 1,000 yaks in normal thread and 1,000 yaks in hot thread. A total of fifteen percent of the yaks are used to calculate intercoder reliability. The intercoder reliability is reported for each measured variable.

Measured Variables

University name. The coders use the “peek” function in the “Yik Yak” app and search the names of the universities. The coders then take down the names of the universities.

University location (region). A total of four regions are included in the study: 1) west; 2) midwest; 3) northeast; and 4) south. The coders have chosen these regions to cover each region offered by U.S. Census Bureau.

Social Interactive Engagement. As reviewed above, the hot thread indicates high social interactive engagement. If the yak is from hot thread, then number 1 is applied. If the yak is from default thread, then number 2 is applied.

Yak Topic. The ten topics identified for this study are: 1) Studies and Classes; 2) Sex; 3) Relationship; 4) Sports; 5) Social; 6) Health and body; 7) Social media, media or television; 8) Weather; 9) Indecipherable; and 10) Other. Topics are not mutually exclusive. The intercoder reliability ranged from .86 to 1.0.

Humor Confirmation. If a yak is identified as humorous, the numerical assignment of 1 is assigned. If the yak is not identified as humorous, the numerical assignment of 0 is applied. For humor confirmation variable, the intercoder reliability is 1.0.

Typology of Humor. A total of seven categories are coded in the current study: 1) comparison; 2) Personification; 3) Exaggeration; 4) Pun; 5) Sarcasm; 6) Silliness; 7) Surprise. The typology of humor is not mutually exclusive. The range of intercoder reliability is .83 to 1.0, indicating two coders have high agreement on the humor type variable.

Yak Topic Style. Each yak will have one, exclusive topic style identified. As reviewed above, if the yak is identified as negative, the numerical assignment of 1 is applied. If the yak is identified as positive, the numerical assignment of 2 is applied. If the yak is identified as neutral, the numerical assignment of 3 is applied (Yip & Martin, 2006). The neutral classification refers to any yak that cannot be determined as either negative or positive. For the topic style variable, the intercoder reliability is .93, indicating two coders have high agreement on the topic style.

Users Motives. The motives for this study include: 1) Information-sharing; 2) Insult; 3) Venting; and 4) Inquiry. The user motives variable is not mutually exclusive. The range of intercoder reliability is .81 to 1.0, indicating two coders have high agreement on this variable.

RESULTS

The four research questions mainly explore the relationship between humorous yaks and yak topics, yak types, yak styles, as well as user motives. A total of 1,000 yaks were factored from default threads and 1,000 yaks were factored from hot threads from ten different university environments. Among the total of 1,000 yaks in default threads, a total of 226 yaks are confirmed as humorous, accounting for 22.8% of the total amount, while a total of 764 yaks are confirmed as non-humorous, accounting for 77.2% of the total amount. Among the 1,000 yaks in hot threads, a total of 532 yaks are confirmed as humorous, accounting for 53.2% of the total amount, while a total of 468 yaks are confirmed as non-humorous, accounting for 46.8% of the total amount.

RQ1 explores the relationship between humor types and humorous yaks on both default and hot threads. In terms of default threads, based on the frequency analysis, “silliness” is the most frequent humor type on Yik Yak default threads, accounting for 53.5%. “Puns” is the second most frequent humor type on Yik Yak, accounting for 21.7%. “Exaggeration” is the third most frequent humor type on Yik Yak, accounting for 15.0%. In order to examine whether silliness has a significant value in terms of statistics, a series of non-parametric binomial tests were conducted with the testing proportion of 53.5%. Based on the results, the proportion of “silliness” is significantly greater than any other humor types ($p < .001$). Therefore, “silliness” is the most frequent humor type occurring on the default threads of Yik Yak.

In terms of hot threads on Yik Yak, the same pattern appears. Based on the frequency analysis, “silliness” is the most frequent humor type occurring on Yik Yak hot threads, accounting for 48.6%. “Puns” is the second most frequent humor type occurring on Yik Yak, accounting for 24.1%. “Exaggeration” is the third most frequent humor type occurring on Yik Yak, accounting for 15.8%. In order to examine whether “silliness” has a significant value in terms of statistics, a series of non-parametric binomial tests are conducted with the testing proportion of 48.6%. Based on the results, the proportion of “silliness” is significantly greater than any other humor types ($p < .001$). Therefore, “silliness” is the most frequent humor type on both default and hot threads of Yik Yak.

RQ2 explores the relationship between humor style and humorous yaks. A series of Chi-Square tests were conducted. In terms of default threads, no significant differences are found between positive and negative styles on humorous yaks ($\chi^2(1) = .56, p > .05$). In other words, the proportions of humor styles are similar on default threads.

For yaks in hot threads, a significant difference is found between positive and negative styles on humorous yaks ($\chi^2(1) = 12.97, p < .001$). The proportion of positive styles is 35.7% while the proportion of negative styles is 54%. In other words, on the hot threads, yaks in negative styles are significantly more present than yaks in positive styles.

RQ3 investigates the relationship between topics and humorous yaks. Based on the frequency analysis, except for the topic category “other,” “social media, media or television” is the most frequent topic occurring on Yik Yak default threads, accounting for 27.1%. “Studies and classes” is the second most frequent topic occurring on Yik Yak,

accounting for 16.9%. “Sexual” is the third most frequent topic occurring on Yik Yak, accounting for 13.9%. In order to examine whether “social media, media or television” has a significant value in terms of statistics, a series of non-parametric binomial tests are conducted with the testing proportion of 27.1%. Based on the results, the proportion of “social media, media or television” is significantly greater than any other topic ($p < .001$). Therefore, “social media, media or television” is the most frequent topic on the default threads of Yik Yak.

In terms of hot threads on Yik Yak, the same pattern appears. Based on the frequency analysis, “social media, media or television” is the most frequent topic on Yik Yak hot threads, accounting for 26.1%. “Studies and classes” is the second most frequent topic on Yik Yak, accounting for 18.2%. “Sexual” is the third most frequent topic on Yik Yak, accounting for 12.4%. In order to examine whether “social media, media or television” has a significant value in terms of statistics, a series of non-parametric binomial tests are conducted with the testing proportion of 27.1%. Based on the results, the proportion of “social media, media or television” is significantly greater than any other topics ($p < .001$). Therefore, “social media, media or television” is the most frequent topic on the hot threads of Yik Yak. In other words, “social media, media or television” is the common topic type discussed among humorous yaks in both default and hot threads.

RQ4 explores the relationship between user motives and humorous yaks. A series of Chi-Square tests are conducted. In terms of default threads, a significant difference is found between the absence of “information-sharing” motives and the presence of “information-sharing” motives on humorous yaks ($\chi^2(1) = 28.78, p < .001$). The proportion of the absence of “information-sharing” is 25.9% while the proportion of the presence of “information-sharing” is 6.0%. In other words, users tend not to share information on Yik Yak. In addition, a significant difference is found between the absence of the “venting” motive and the presence of the “venting” motive on humorous yaks ($\chi^2(1) = 33.82, p < .001$). The proportion of the absence of “venting” is 27% while the proportion of the presence of “venting” is 8.5%. In other words, users tend not to vent on Yik Yak. Finally, a significant difference is found between the absence of the “inquiry” motive and the presence of the “inquiry” motive on humorous yaks ($\chi^2(1) = 44.86, p < .001$). The proportion of the absence of “inquiry” is 26.9% while the proportion of the presence of “inquiry” is 3.0%. In other

words, users tend not to make any inquiries on Yik Yak default threads. No significant difference was found between the absence of the “insult” motive and the presence of the “insult” motive. Therefore, the four motives do not relate to the humorous yaks on Yik Yak default threads.

In terms of hot threads, the same pattern is found. A significant difference is found between the absence of the “information-sharing” motive and the presence of the “information-sharing” motive on humorous yaks ($\chi^2(1) = 107.84, p < .001$). The proportion of the absence of “information-sharing” is 53.7% while the proportion of the presence of “information-sharing” is 7.9%. In other words, users tend not to share information on Yik Yak. In addition, a significant difference is found between the absence of the “venting” motive and the presence of the “venting” motive on humorous yaks ($\chi^2(1) = 68.10, p < .001$). The proportion of the absence of “venting” is 53.4% while the proportion of the presence of venting is 21.1%. In other words, users tend not to vent on Yik Yak. Finally, a significant difference is found between the absence of the “inquiry” motive and the presence of the “inquiry” motive on humorous yaks ($\chi^2(1) = 12.77, p < .001$). The proportion of the absence of “inquiry” is 47.8% while the proportion of the presence of “inquiry” is 17.1%. In other words, users tend not to make any inquiry on Yik Yak hot threads. No significant difference was found between the absence of the “insult” motive and the presence of the “insult” motive. Therefore, the four motives do not relate to the humorous yaks on Yik Yak hot threads.

DISCUSSION

Theoretical Implications

One noteworthy finding of the study is that “social media, media and TV” is the most prominent topic for humorous yaks in both regular and hot threads. One potential reason is the idea of “second screen” involvement using mobile applications, which in this case, would include Yik Yak (Lochrie & Coultron, 2011). Second screen involvement takes place when a user engages television programming or a streaming program online (i.e., the primary screen) (Holt & Sanson, 2013), and then engages in discussions or other forms of engagement using another device (e.g., a smartphone). Users who are watching a television show could guess plot sequences on a social platform after a prompt initiated by

the media producers (Courtois & D'heer, 2012), or users could go unprompted on to a mobile app like Yik Yak and engage in a conversation or self-expression about the media content from the primary screen (Tseklevs, Cruickshank, Hill, Kondo, & Whitham, 2007).

Using mobile apps like Yik Yak helps facilitate interactions among the audiences (Lochrie & Coulton, 2011). Users can engage Yik Yak to post humorous content immediately after their exposure to a primary screen, which may attract attention from other users. This attention may then prompt communication and interaction with other users. For college students, sharing entertaining content like TV and celebrity drama via social media is a popular expression in their social life (Lee & Oh, 2013). Therefore, employing Yik Yak as a second screen to facilitate communication and engagement with others serves as a prominent function for college students, which may inspire humorous posts due to the platform's anonymity. Yik Yak's users are able to utilize the second screen experience to deliver humorous expressions related to the primary screen, which may gain attention and achieve resonance with others in a timely manner.

Compared with non-anonymous applications, anonymous applications can better improve users' second screen experiences. The authors suggest three reasons for why this may occur. First, Yik Yak may have high user engagement; whereby, users may believe many others will read their posts. Second, with many peers from each user's local environment (i.e., their college) engaged on the app, users may feel their posts may gain attention among viewers of more social consequence to their real life. Third, Yik Yak may generate high user retention, where users engage the app several times throughout the day. This behavior may apply during a streaming program or TV airing. The authors also suggest the possibility that high retention may create a level of familiarity with the app's platform, which enables users to more easily generate posts and consume content. Overall, the authors suggest anonymous platforms provide an opportunity for college students to engage in the second screen experience. However, more studies are recommended to test the aforementioned reasons offered by the authors.

Another topic that was prominently featured on Yik Yak was "health and body." However, this topic only had a significant presence on default threads. Several studies have analyzed social media's role in how and why users communicate questions, ideas, feelings and thoughts regarding their health (Green, Choudry, Kilabuk, & Shrank, 2011;

Mangold & Faulds, 2009); the current study may indicate that “health and body” is just as relevant and frequently discussed, if not more so, on anonymous platforms compared to non-anonymous social media platforms. Furthermore, the current study’s results suggest “health and body” is a salient topic among Yik Yak users. However, because “health and body” was not featured on the hot thread, this indicates the topic is frequently posted but not frequently upvoted or celebrated. One potential reason is that during the process of social-interactive engagement, users tend to upvote or pay attention to the common topics most relevant to them. The topic of “health and body,” which refers to the mention of bodily functions, eating, sleeping (which does not denote sex) and diet, is more attached to individuals’ personal relevance, lacking group relevance. Therefore, “health and body” is the prominent topic for default threads, as opposed to the threads with more social-interactive engagement, which is more associated with the hot thread.

Additionally, this is the first study to reveal through statistical analysis that user motives have a negative association with humorous yaks. The results indicate that the main motives for users to post humorous yaks are not “information-sharing,” “venting,” “inquiry” or “insult.” The potential reason can be explained by referring to the results about the prominent humor type. Based on the results, the prominent humor type is “silliness.” In other words, users mainly deliver silliness through their humorous yaks in order to construct funny or ludicrous messages (Catanescu & Tom, 2001). One reason for this is that silliness could be more easily employed to arouse laughter in others. Meaning, it is potentially easier to construct a humorous message using silliness as opposed to another typology that may take more cognitive skill, thought or experience (Helitzer & Shatz, 2005). This form of user content might relate to other motives like “attention-seeking,” which is commonly seen among comedians who use this motive to produce comedy content (Greengross & Miller, 2009). The examples of user motives, which consider ease of content construction and desire for attention, do not include silliness. Therefore, none of the user motives can be applied to predict humorous posts on Yik Yak because silliness does not relate to any of the above user motives.

Practical Implications

The following three practical implications can be drawn from the current study. First, anonymous platforms can serve as a complementary tool for improving second-screen experiences among college students, especially through delivering humorous messages. This may have significant market implications as Yik Yak, or other anonymous platforms with high-retention rates among users, could be effectively monetized. In other words, an advertisement in the form of a yak would have an engaged audience that is well defined with consumer interest. As an example, as the college demographic engages Yik Yak for a second screen experience about a specific show, the specific interests of the engaged audience is identifiable. Thus, targeted advertising could be applied.

Second, the motives of engaging anonymous platforms for users are potentially different from the traditional non-anonymous platforms. The four user motives tested in the current study are adapted from Twitter, which is representative of a non-anonymous platform (Alhadi et al., 2011). Users have different motives when using anonymous platforms, like attention-seeking, among others. Similar to the previous example of monetizing Yik Yak in consideration of second screen engagement, further research that better defines user motives regarding anonymous social media may have significant market implications. The results of an improved understanding of user motives in this social media environment may be effective advertising through peer to peer engagement (P2P) (Levi & Bauer, 2010). P2P advertising involves strategic posts on behalf of client interests which may be perceived as genuine endorsements or authentic user content. In other words, P2P advertising could be employed to influence users with advertising aims by understanding why users engage the anonymous app and what they seek. Therefore, the P2P advertising placements will look more authentic, and in theory, be more effective.

Finally, based on the results, on the hot threads among the ten universities included in this study, yaks with a “negative” style are significantly more present than yaks with a positive style. In other words, humorous yaks in hot threads are significantly more present in a negative style. The potential reason is that although the company tends to demote negative posts, many of which are determined to be cyberbullying, the negative styles still prevail due to high social interactive engagement. Meaning, a high quantity of negative posts, along with users’ upvoting such posts, enables the hot thread to have a

significant amount of negative humorous posts. Also, there may be enough variations of negativity among yaks that present difficulty for the platform's administrators to properly assess which yaks are deemed cyberbullying.

Limitations and Future Directions

The current study has three main limitations. First, the current study mainly focuses on exploring humor on an anonymous platform. Besides humor, many other features or characteristics like "sexting" can be observed on anonymous social media platforms. This refers to sexual posts on Yik Yak, some of which may be directed at other users or imagined users, depending on whether or not the audience has revealed their identity (Wolak & Finkelhor, 2011). Therefore, future studies of anonymous platforms, which may include Yik Yak, could better define the universe of this media environment with a focus on this phenomenon. Second, the current study mainly focuses on Yik Yak, which is a notably popular anonymous platform among college students. However, there are an increasing number of anonymous platforms, which include Secret, Lulu, Kik, Reach and Whisper, among others. Therefore, future studies may include analyses of multiple anonymous platforms. Finally, the current study mainly explores anonymous platforms without other social media environments directly factored into the statistical analysis. Therefore, future studies may include comparative analyses between anonymous and non-anonymous platforms in order to better explore the differences between users' motives, post types, post styles and post topics.

CONCLUSION

As anonymous social media expand from growing market interest, this study's results may enable future research that focus on user motives and engagement style of posts. The operationalized measures employed in this study provide tools for future scholars to inquire about social media interactivity in anonymous environments beyond Yik Yak. Moreover, researchers will have scholarly precedent for operationalizing humor typology in more populated social media platforms like Twitter or Facebook, which have an extensive body of literature that explores different online engagement styles. Thus, advancing the literature in both anonymous and non-anonymous social media

environments will create pathways for comparison; whereby, the universe of online and mobile engagement can be better defined.

This study is among the first to focus on the specific types and features of posts on an anonymous social media platform in the mobile phone environment. Through an analysis of humorous content and its relationships with anonymity, this study answers the question of what specific topics, styles, types and user motives are most present for users of anonymous social media. Through this seminal research, the researchers are able to better contribute to the literature on humor and social media, especially anonymous social media platforms. This study's findings should enable future researchers to advance studies on the emerging environment of anonymous social media.

References

- Alhabash, S., & McAlister, A. R. (2014). Redefining virality in less broad strokes: Predicting viral behavioral intentions from motivations and uses of Facebook and Twitter. *New Media & Society*, 1461444814523726.
- Alhadi, A. C., Gottron, T., & Staab, S. (2011). Exploring user purpose writing single tweets. *Proceedings of the 3rd International Conference on Web Science*. Koblenz, Germany: ACM Digital Library
- Anderson, A., Huttenlocher, D., Kleinberg, J., & Leskovec, J. (2012, February). Effects of user similarity in social media. In *Proceedings of the fifth ACM international conference on Web search and data mining* (pp. 703-712). ACM.
- Antin, J., & Churchill, E. F. (2011). Badges in social media: A social psychological perspective. In *CHI 2011 Gamification Workshop Proceedings (Vancouver, BC, Canada, 2011)*.
- Attardo, S. (1994). *Linguistic theories of humor* (Vol. 1). Walter de Gruyter.
- Bhat, S., & Reddy, S. K. (1998). Symbolic and functional positioning of brands. *Journal of Consumer Marketing*, 15(1), 32-43.
- Bauckhage, C. (2011, May). Insights into Internet Memes. In *ICWSM*.
- Blog.Twitter.Com (2015). Removing the 140-character limit from Direct Messages. Retrieved from https://blog.twitter.com/official/en_us/a/2015/removing-the-140-character-limit-from-direct-messages.html
- Blumler, J. G., & Katz, E. (1974). *The Uses of Mass Communication*. Newbury Park, CA: Sage.
- Burns, H. (2014). Yik Yak app stirring up chatter on college campuses. *USA Today*. Retrieved from <https://eu.usatoday.com/story/tech/personal/2014/03/07/yik-yak-college-students/6124405/>

- Catanescu, C., & Tom, G. (2001). Types of humor in television and magazine advertising. *Review of Business-Saint Johns University*, 22(1), 92-95.
- Chew, C., & Eysenbach, G. (2010). Pandemics in the age of Twitter: Content analysis of tweets during the 2009 H1N1 outbreak. *PloS one*, 5(11), e14118.
- Courtois, C., & D'heer, E. (2012, July). Second screen applications and tablet users: constellation, awareness, experience, and interest. In *Proceedings of the 10th European conference on Interactive tv and video* (pp. 153-156). ACM.
- Dann, S. (2010). Twitter content classification. *First Monday*, 15(12). doi:http://dx.doi.org/10.5210/fm.v15i12.2745
- DiMicco, J., Millen, D. R., Geyer, W., Dugan, C., Brownholtz, B., & Muller, M. (2008, November). Motivations for social networking at work. In *Proceedings of the 2008 ACM conference on Computer supported cooperative work* (pp. 711-720). ACM.
- Eighmey, J., & McCord, L. (1998). Adding value in the information age: Uses and gratifications of sites on the World Wide Web. *Journal of Business Research*, 41(3), 187-194.
- Flamson, T., & Barrett, H. C. (2008). The encryption theory of humor: A knowledge-based mechanism of honest signaling. *Journal of Evolutionary Psychology*, 6(4), 261-281.
- Flamson, T. J., & Bryant, G. A. (2013). Signals of humor. *Developments in Linguistic Humour Theory*, 1, 49.
- Friedman, R. S., Förster, J., & Denzler, M. (2007). Interactive effects of mood and task framing on creative generation. *Creativity Research Journal*, 19(2-3), 141-162.
- Greene, J. A., Choudhry, N. K., Kilabuk, E., & Shrank, W. H. (2011). Online social networking by patients with diabetes: a qualitative evaluation of communication with Facebook. *Journal of General Internal Medicine*, 26(3), 287-292.
- Green, N., Harper, R. H., Murtagh, G., & Cooper, G. (2001). Configuring the mobile user: sociological and industry views. *Personal and Ubiquitous computing*, 5(2), 146-156.
- Greengross, G., & Miller, G. F. (2009). The Big Five personality traits of professional comedians compared to amateur comedians, comedy writers, and college students. *Personality and Individual Differences*, 47(2), 79-83.
- Hartshorne, E. Y. (1943). Undergraduate society and the college culture. *American Sociological Review*, 321-332.
- Helitzer, M., & Shatz, M. (2005). *Comedy writing secrets*. Writer's Digest Books.
- Holt, J., & Sanson, K. (Eds.). (2013). *Connected Viewing: Selling, Sharing, and Streaming Media in a Digital Age: Selling, Streaming, & Sharing Media in the Digital Age*. Routledge.
- Holzer, A., Govaerts, S., Ondrus, J., Vozniuk, A., Rigaud, D., Garbinato, B., & Gillet, D. (2013). Speakup—a mobile app facilitating audience interaction. In *Advances in Web-Based Learning—ICWL 2013* (pp. 11-20). Springer Berlin Heidelberg.
- Hummon, D. M. (1994). College slang revisited: Language, culture, and undergraduate life. *The Journal of Higher Education*, 65(1), 75-98. doi:10.2307/2943878
- Katz, E., Blumler, J. G., & Gurevitch, M. (1973). Uses and gratifications research. *The Public Opinion Quarterly*, 37(4), 509-523.
- Kim, J., & Lee, J. E. R. (2011). The Facebook paths to happiness: Effects of the number of Facebook friends and self-presentation on subjective well-being. *Cyberpsychology, Behavior, and Social Networking*, 14(6), 359-364.

- Kim, Y., Sohn, D., & Choi, S. M. (2011). Cultural difference in motivations for using social network sites: A comparative study of American and Korean college students. *Computers in Human Behavior, 27*(1), 365-372.
- Klink, M. L. (2010). *Laugh out loud in real life: Women's humor and fan identity* (Doctoral dissertation, Massachusetts Institute of Technology).
- Kolb, D. A. (2014). *Experiential learning: Experience as the source of learning and development*. FT Press.
- Krämer, N. C., & Winter, S. (2008). Impression management 2.0: The relationship of self-esteem, extraversion, self-efficacy, and self-presentation within social networking sites. *Journal of Media Psychology: Theories, Methods, and Applications, 20*(3), 106.
- Kuipers, G. (2006). The social construction of digital danger: debating, defusing and inflating the moral dangers of online humor and pornography in the Netherlands and the United States. *New Media & Society, 8*(3), 379-400.
- Kwak, H., Lee, C., Park, H., & Moon, S. (2010, April). What is Twitter, a social network or a news media?. In *Proceedings of the 19th international conference on World wide web* (pp. 591-600). ACM.
- Lakkaraju, H., McAuley, J. J., & Leskovec, J. (2013, June). What's in a Name? Understanding the Interplay between Titles, Content, and Communities in Social Media. In *ICWSM*.
- Lamos, V. (2012). On voting intentions inference from Twitter content: A case study on UK 2010 General Election. *arXiv preprint arXiv:1204.0423*.
- Lee, E.-J., & Oh, S. Y. (2013). Seek and you shall find? How need for orientation moderates knowledge gain from Twitter use. *Journal of Communication, 63*(4), 745-765.
- Levi, A. E., & Bauer, B. W. (2010). *U.S. Patent No. 7,664,516*. Washington, DC: U.S. Patent and Trademark Office.
- Liu, S. (2012). The Most Popular Thing You've Probably Never Heard of. www.writingandrhetoric.cah.ucf.edu/stylus/files/2_1/stylus2_1-liu.pdf. Accessed at 2.3.2012
- Lochrie, M., & Coulton, P. (2011, November). Mobile phones as second screen for TV, enabling inter-audience interaction. In *Proceedings of the 8th International Conference on Advances in Computer Entertainment Technology* (p. 73). ACM.
- Mangold, W. G., & Faulds, D. J. (2009). Social media: The new hybrid element of the promotion mix. *Business Horizons, 52*(4), 357-365.
- Mersey, R. D., Malthouse, E. C., & Calder, B. J. (2010). Engagement with online media. *Journal of Media Business Studies, 7*(2).
- Mills, R. (2011). "Researching social news – is reddit.com a mouthpiece for the 'hive mind' or a collective intelligence approach to information overload?" Paper presented at ETHICOMP 2011, Sheffield: Sheffield Hallam University
- Norricks, N. R. (1989). Intertextuality in humor. *Humor-International Journal of Humor Research, 2*(2), 117-140.
- Page, R. E. (2013). *Stories and social media: Identities and interaction*. Routledge.
- Park, N., & Lee, S. (2014). College students' motivations for Facebook use and psychological outcomes. *Journal of Broadcasting & Electronic Media, 58*(4), 601-620.

- Raacke, J., & Bonds-Raacke, J. (2008). MySpace and Facebook: Applying the uses and gratifications theory to exploring friend-networking sites. *Cyberpsychology & behavior, 11*(2), 169-174.
- Ramoz-Leslie, N. J. (2011). *Doin'it for the Lulz: a contemporary analysis of internet humor: A thesis in sociology* (master's thesis). Whiteman College, Walla Walla, WA, USA.
- Reyes, A., Rosso, P., & Buscaldi, D. (2012). From humor recognition to irony detection: The figurative language of social media. *Data & Knowledge Engineering, 74*, 1-12.
- Sanderson, B., & Rigby, M. (2013). We've Reddit, have you? What librarians can learn from a site full of memes. *College & Research Libraries News, 74*(10), 518-521.
- Seidman, G. (2013). Self-presentation and belonging on Facebook: How personality influences social media use and motivations. *Personality and Individual Differences, 54*(3), 402-407.
- Shao, G. (2009). Understanding the appeal of user-generated media: a uses and gratification perspective. *Internet Research, 19*(1), 7-25.
- Shifman, L. (2007). Humor in the age of digital reproduction: Continuity and change in Internet-based comic texts. *International Journal of Communication, 1*(1), 23.
- Silius, K., Miilumaki, T., Huhtamaki, J., Tebest, T., Merilainen, J., & Pohjolainen, S. (2010). Students' motivations for social media enhanced studying and learning. *Knowledge Management & E-Learning: An International Journal (KM&EL), 2*(1), 51-67.
- Strauss, W., Howe, N., & Markiewicz, P. G. (2006). *Millennials and the pop culture: Strategies for a new generation of consumers in music, movies, television, the Internet, and video games*. LifeCourse Associates.
- Tsekleves, E., Cruickshank, L., Hill, A., Kondo, K., & Whitham, R. (2007, December). Interacting with digital media at home via a second screen. In *Multimedia Workshops, 2007. ISMW'07. Ninth IEEE International Symposium on* (pp. 201-206). IEEE.
- Wang, G., Wang, B., Wang, T., Nika, A., Zheng, H., & Zhao, B. Y. (2014, November). Whispers in the dark: analysis of an anonymous social network. In *Proceedings of the 2014 Conference on Internet Measurement Conference* (pp. 137-150). ACM.
- Wasike, B. S. (2011). Framing social news sites: An analysis of the top ranked stories on Reddit and Digg. *Southwestern Mass Communication Journal, 27*(1).
- Westlund, O. (2013). Mobile news: a review and model of journalism in an age of mobile media. *Digital Journalism, 1*(1), 6-26.
- Winnick, C. (1976). The social contexts of humor. *Journal of Communication, 26*(3), 124-128.
- Wolak, J., & Finkelhor, D. (2011). Sexting: A typology. In *Crimes against Children Research*.
- Yik Yak investment data drawn from: <http://techcrunch.com/2014/11/14/yik-yak-is-close-to-closing-on-roughly-75-million/>
- Yip, J. A., & Martin, R. A. (2006). Sense of humor, emotional intelligence, and social competence. *Journal of Research in Personality, 40*(6), 1202-1208.
- Zhao, W. X., Jiang, J., He, J., Song, Y., Achananuparp, P., Lim, E. P., & Li, X. (2011, June). Topical keyphrase extraction from twitter. In *Proceedings of the 49th annual meeting of the association for computational linguistics: Human language technologies-volume 1* (pp. 379-388). Association for Computational Linguistics.

Funding and Acknowledgements

The authors declare no funding sources or conflicts of interest.

Online Connections

To follow these authors in social media:

Brandon K. Chicotsky: @chicotsky (Twitter); bchicotsky.com; LinkedIn.com/in/chicotsky

Fei Qiao: @fei_qiao (Twitter)